

TRILL Anycast Layer 3 Gateway

draft-hao-trill-anycast-gw-00

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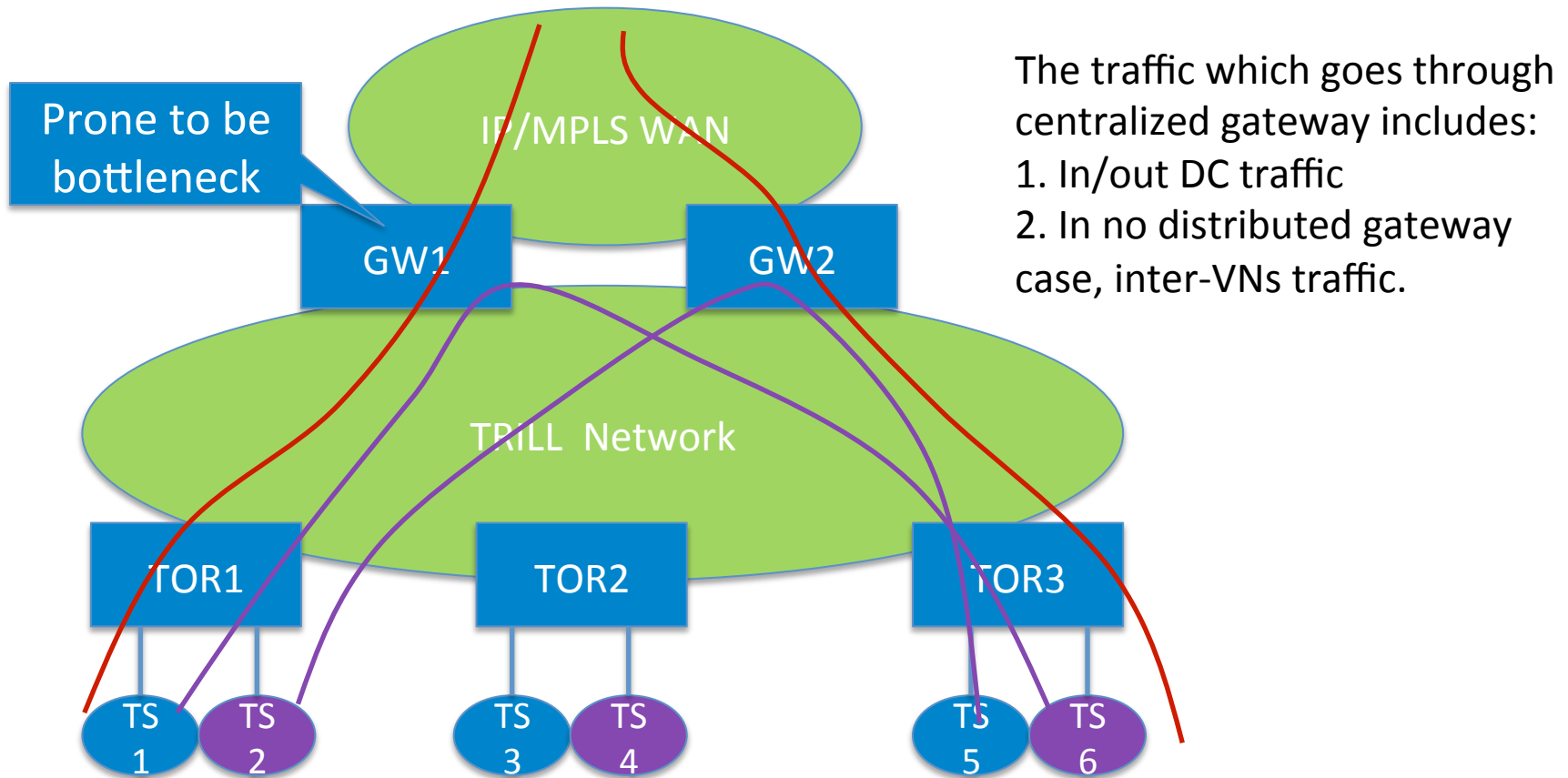
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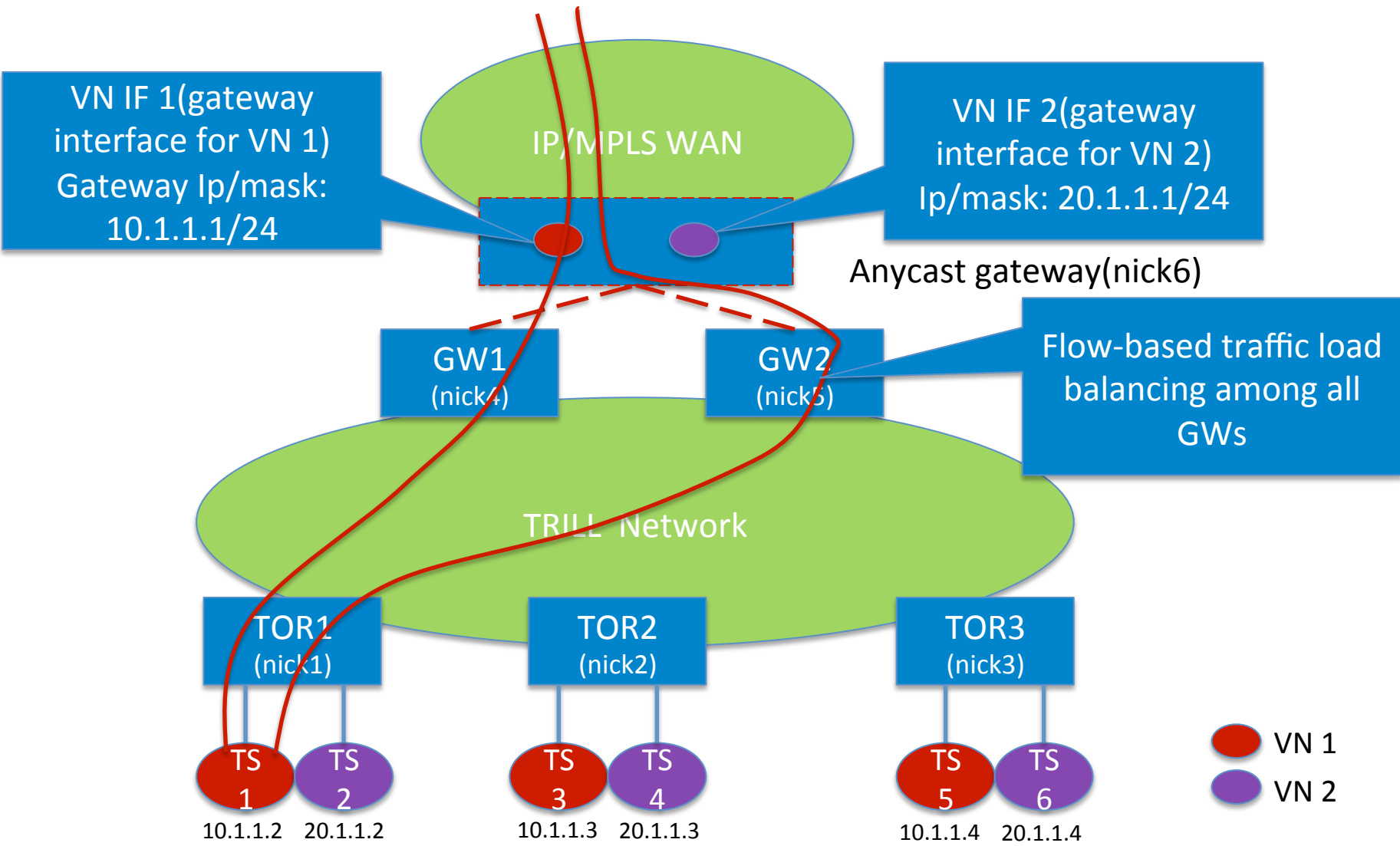
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Scenario

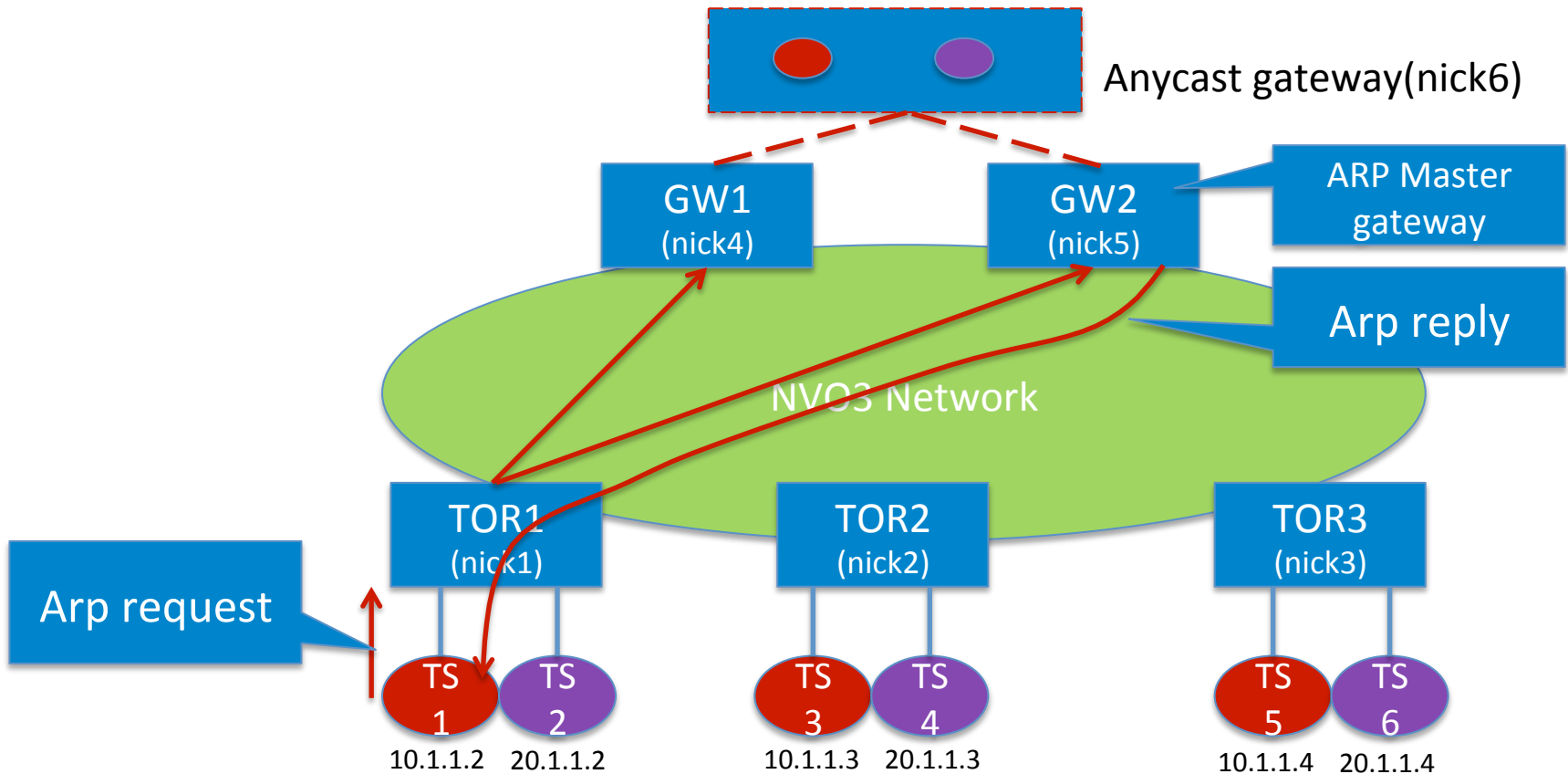


TRILL layer 3 anycast gateway is to enhance gateway scalability.

Solution



ARP Handling



To avoid duplicated ARP reply, only one GW is selected to be responsible for returning ARP reply per VLAN/FGL.

TRILL protocol extension

```
+--+--+--+--+--+--+--+--+
|Type= ANY-GW | (1 byte)
+--+--+--+--+--+--+--+--+
| Length      | (1 byte)
+--+--+--+--+--+--+--+--+
|      Anycast GW Nickname      | (2 bytes)
+--+--+--+--+--+--+--+--+
```

- All the gateways should ensure the anycast nickname configuration consistency.
- Each gateway MUST ignore the nickname collision check for anycast nickname.
- All the inter-subnet traffic to the anycast gateways MUST use the nickname as egress nickname in TRILL header.

Comparison between VRRP and anycast gateway solution

Dimension	VRRP	Anycast gateway solution
Network bandwidth usage	Low	High
Keep alive workload	VRRP Session per VN	No
Network resilience	VRRP Switchover	Underlying network convergence

Next Steps

- Solicit other comments and suggestions.